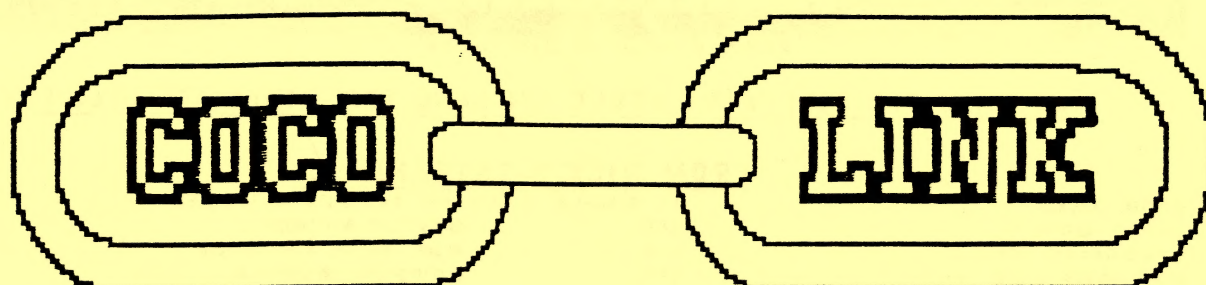
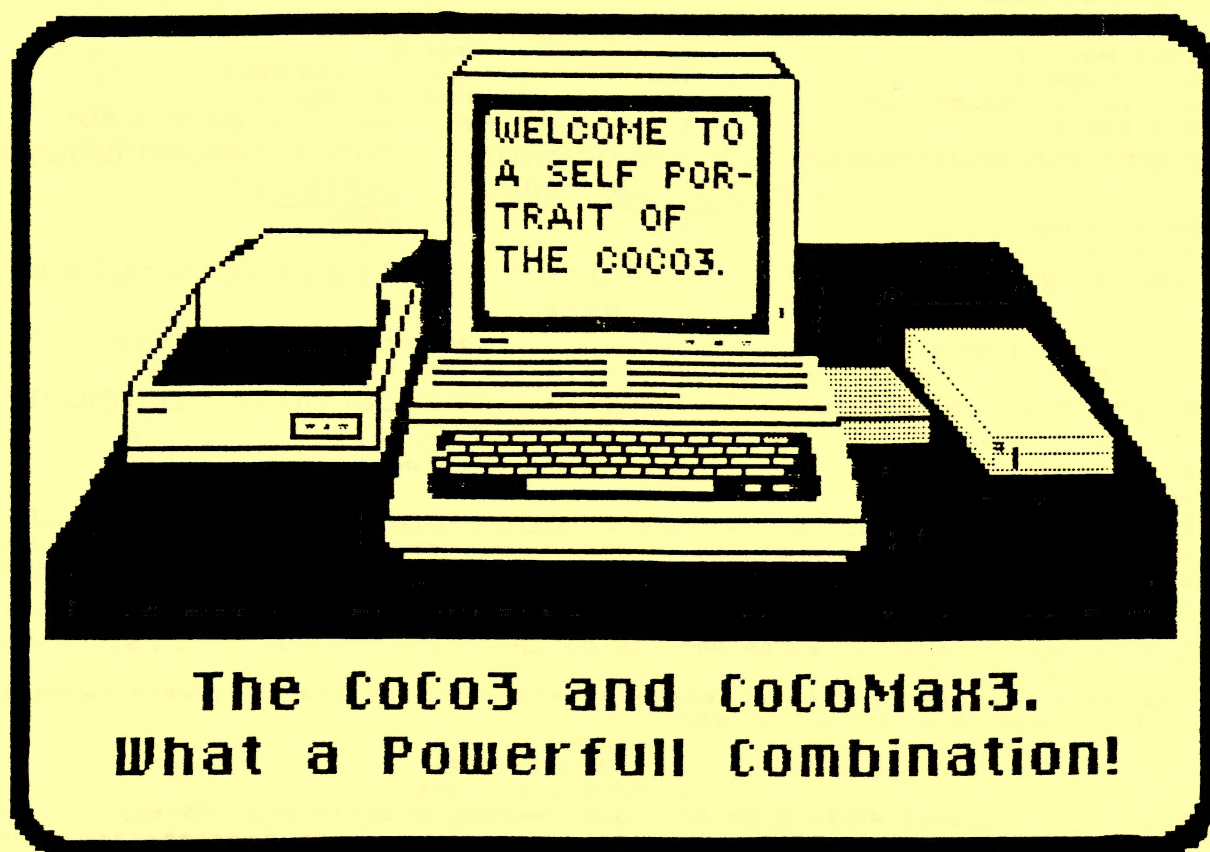


Jul/Aug 93

Vol 1. No.4



The Colour Computer Magazine



Featuring: DIGITECH REVIEW
TANDY'S LITTLE WONDER
READERS PROGRAMMES
PLUS LOTS MORE

REMCOMS

REMCOM COMPUTER SOFTWARE

WE HAVE THE FOLLOWING STOCK ON HAND FOR IMMEDIATE DELIVERY:

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MASTER DIR 3	\$15	TETRA	\$15

oo

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oo

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oo

AUSTRALIAN PRODUCED SOFTWARE:

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DIGITECH	\$35		

oo

BOOKS:

500 PEEKS, POKES & EXECs	\$25	300 PEEKS, POKES & EXECs	\$25
SUPPLEMENT TO ABOVE	\$15	TANDY'S LITTLE WONDER	\$30

oo

FROM JWT ENTERPRISES:

OPTIMIZE SET 1	\$45	OPTIMIZE SET 2	\$35
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oo

WE ARE ALSO AGENTS FOR MOST USA COMPANIES, INCLUDING SUNDG, DAYTON ASSOCIATES AND BURKE & BURKE. WE CAN ALSO OBTAIN SOFTWARE AND HARDWARE FROM OTHER AGENCIES IN THE STATES, CALL FOR INFORMATION.

WHEN ORDERING PRODUCTS WHICH MUST BE OBTAINED FROM THE USA, PLEASE ALLOW A MINIMUM OF 21 DAYS FOR DELIVERY.

TO ORDER RING: (075) 435 821 OR WRITE TO:

REMCOMS
11 CORCORAN CRES
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IN SYDNEY:

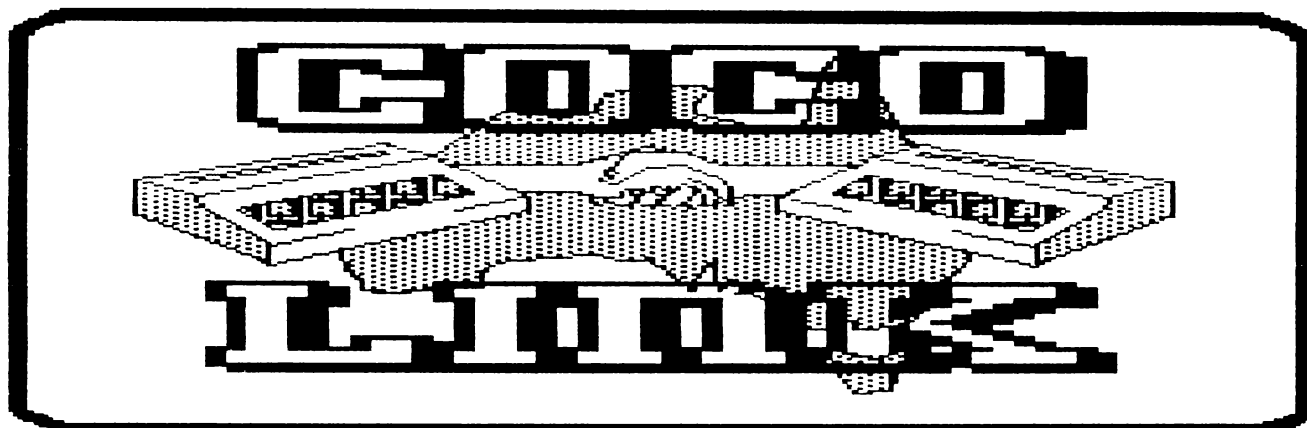
JOHN MORRIS
30/45 LAWRENCE HARGRAVE RD
WARWICK FARM 2170
(02) 822-4678

IN MELBOURNE:

JOHN IKIN
42 SPRUCE OVE
ROWVILLE 3178
(03) 759-6253

(LEAVE MESSAGE ON ANSWERING MACHINE IF OFFICE UNATTENDED)

Postage is \$5 for software and actual charges for hardware, tapes are also available for the coco 1, 2 and 3.



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Remin's Ramblings

This time in my chance to get things off my chest I have the proverbial good news and bad news.

First the bad news:

The 5 Meg Board

After six months of promises and countless telephone calls I have finally come to the realisation that the 5 Meg plug-in board just might have been the hopes and dreams of a "Gunner".

This revelutionary advance for the CoCo was first mooted at the CoCoFest last year, at which time REMCOMS agreed to set up advertising and then market the board both here in Australia and overseas.

Unfortunately REMCOMS has ended up with egg on their face as the advertising has been done both in this magazine and overseas but the only product forthcoming to date after over six months, is another promise and another excuse for the non appearance of a board which at the time was supposedly only weeks off final completion.

To all of you who were holding off waiting for this product my most sincere apologies for building up your hopes. My only defence being, I wanted to believe that it could be done and I honestly believed that the person in question was not selling me a raw prawn. By way of making amends I am currently negotiating to market the known 2 Meg board here in Australia in the very near future. If per chance this board does eventuate, I will let you all know through the pages of this magazine, but only after I have physically seen the product and tested it in my machine

Now the good news:

CoCo-Link will, from the next issue, have a truly international flavour, I have negotiated reciprocal reprinting rights with the 68 micro magazine of America.

This means that CoCo-Link will contain selected articles from 68 Micro and vice versa. The end result of this is that subscribers to CoCo-Link here, in Australia and subscribers to 68 Micro in America will be getting virtually two magazines for the price of one. If you know someone who was considering a subscription to CoCo-Link but was unsure of how long it would last, then this news should indicate to them that CoCo-Link is here to stay for as long as there are CoCo users.

And more good news, read later in this magazine about two new products now available, DIGITECH and the book 'Tandy's Little Wonder'. Those of you who were wondering about the products from CoCoPro, in particular the OS9 programmes, then wonder no more, I have negotiated to sell these products in Australia. Keep in touch, in any case I will let you know about prices etc as soon as I work out the reproduction costs and royalties.

Thats about all for this magazine anyway, again my apologies for the 5 Meg board.

PS.

Don't forget about the competition being run for some fabulous prizes, as announced in the last magazine.



DEAR ED

Link-Up

Dear Ed,

Re your article in Remin's Ramblings about Britt Monks "Strip Tease". Whilst I agree with you in principle, I find it all a bit problematical!

I typed in the line as described in your article, this produced some ASCII and letters or produced a rectangle in colour. Please explain how it could produce the first owners name!!!. So few of us can manage ML with the CoCo.

By the way have you tried the formula yourself?

Val Stephen.

Dear Val,

I do not know exactly how this is done, however, in principal it is a matter of encoding the name of the purchaser into the program but this is hidden from normal use until the formula as I described is used. The reason it may not have worked for you is that you were trying it on a CoCo 3 when the original program was designed for a CoCo2, (although a lot of programmes are compatible between these two machines, they do in some cases address different areas of memory). Yes I did try it on a copy of the programme I found amongst one of my bulk purchases, firstly on the CoCo3 with the same result as yourself and then on a CoCo2. On the CoCo2 the original purchasers name was printed up and I believe he had the copyright for this programme in Australia some years ago before he passed away.

ED.

Dear Fred,

Could you or one of our readers tell me how to get the Tandy Speech and

Sound Cartridge to run on the CoCo whilst in the High Speed mode. I have been told the patch varies with the model Cartridge you own.

My Cartridge's model number is 26-3144.

Thank you once again for your assistance and for keeping the CoCo Community alive.

Yours in CoCoing,

Desmond Rae.

Des,

I can vaguely remember seeing something on the subject some time ago in a magazine, but for the life of me I can not find it amongst my stuff at the moment. I will keep looking for you, in the mean time someone else out there may be able to help you out.

If you can assist Des, his details are in the user contact list in this magazine.

ED.

Dear Fred,

Enclosed is a drawing I wish to enter in the drawing competition. I hope you don't mind me sending so many drawings but I am a prolific drawer, I hope you enjoy these.

Graham Elphick

Graham,

Thank you not only for entering the competition but sending in your drawings for all to see. NO I do not mind you sending them to the Mag, this magazine is for CoCo users of all types from the one line experimenter to the avid ML programmer. No matter how big or small your programme, send them in THEY WILL BE PRINTED.

ED.

NEW PRODUCTS

I am particularly pleased to announce two new products that are now available through REMCOMS. The first is the sound digitizer that was mentioned in CoCo-Link No1 this year. This new product was written by David Hendrie, the author of the CROSS-ROADS programme that has the yanks raving about the 'Aussie accent' it contains.

The programme is called DIGITECH and comes on a single disk with a cable for connection to your sound source. Unfortunately I have only had the programme a very short time to play around with before writing this quick review so all I can do at this stage is wet your appetite.

The instructions are not available to me for DIGITECH at this stage due to a garbled disk which contained them. However David is producing another set for me and I will include all relevant information in the next magazine.

Even without the instructions the programme is easy to use and work out, what could be simpler than plugging in one end of the cable to the joystick port, the other to the sound source, and then following the prompts on the screen to record the sound. Once the number of blocks requested have been recorded it is simply then a matter of again following the prompts to play back the digitized sound, and what a sound it is.

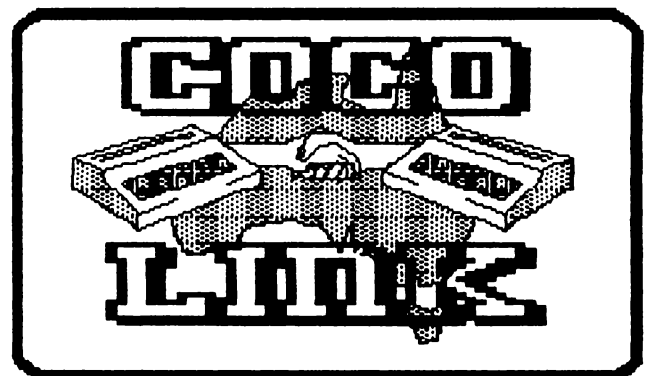
Those of you who were at the CoCoFest in Melbourne last year would remember the quality of sound from the CROSS-ROADS programme that David showed us, for those who

missed out on the Fest, believe me the reproduction is impressive.

Rather than drag across my stereo and CD to the computer I connected the cable to my CCR 81 tape deck (besides I don't use tapes that often anymore), dropped in a music tape and recorded 25 blocks of sound, it worked perfectly. Just think, now you have found a use for that tape deck that has been sitting in the cupboard collecting dust all these years.

All in all I am impressed with DIGITECH, and I believe it is just what those of you who are into producing sound from your CoCo have been waiting for. You could even digitize your own voice to disk and incorporate this into educational programmes for the kids.

DIGITECH is available from REMCOMS for \$35 (Aus) + \$5 P+P and includes the programme, a cable and instructions.



NEW PRODUCTS

The second new product is one that a lot of us have been waiting for for some time. It is the book all about our favourite computer The Colour Computer and it is called

TANDY's LITTLE WONDER

This book was written in the States by Frank Swygert, (FARNA SYSTEMS and the article UP YONDER from CoCo-Link) and was over twelve months in the making. It is jam packed with all manner of information on the CoCo including a segment about the CoCo here in Australia.

TANDY's LITTLE WONDER contains over 140 pages and is a professionally produced tome, the Australian version has a blue cover and the American one a yellow cover. The Australian version has an addendum pertaining to the CoCo here, supplying information on who, what and where support is available.

Some of the information about the CoCo, especially in it's early stages of development, is a real eye opener, for example did you know that the very first CoCo's were primarily produced for use in the agriculture industry in America.

The book contains schematics for the CoCo reproduced by permission from Tandy and contains articles from such notables in the CoCo community as Marty Goodman, Tony DiStefano and Bill Bernico to name just a few.

The CoCo is traced from it's inception and early beginnings through to the present time and what the future holds for it as well.

For the hardware hackers this book is a must as it contains projects which include parts lists and schematics for all manner of applications. For those of us whose curiosity has not been sated by present publications about our machine, then Tandy's Little Wonder will fill the gap, it is in fact an how, when, where and why of the Colour Computer.

The price of the book is more than reasonable, in fact it is a bargain, at \$30 (Aus) + \$5 P+P. REMCOMS who are reprinting the book for the Australian market are also selling advertising in the book. If you would like to advertise your user group or company then this would have to be the best way to get this information to the whole CoCo community. In fact it already contains a list of user groups and BBS's from the States and the contact details for the OS9 User Group in Australia.

In conclusion, TANDY's LITTLE WONDER is THE reference that every CoCo user simply MUST have on their shelves, it is well produced, informative and reasonably priced.

For more details contact REMCOMS,

11 Corcoran Cres
CANUNGRA QLD 4275

(075) 435 821



COLOUR SCHEMATIC DESIGNER V3.0

I recently received a copy of the COLOUR SCHEMATIC DESIGNER from RADICAL ELECTRONICS of Canada. The programme is for drafting schematic diagrams of electrical circuits, it's requirements are;

512k CoCo 3

1 Disk Drive

Mouse (joystick) with Tandy Hi-Res interface.

Features are;

- (1). Object oriented programme with 6400 symbol buffer 64K text,
- (2). Postscript output (laser printer support)
- (3). Node list generator
- (4). Supports IBM graphics, Epson FX/LX and Tandy DMP printers,
- (5). Block copy, load, save - allows generation of a library of circuits,
- (6). 64 symbols available at once - editor built in,
- (7). Line draw functions (vert/horiz, linking, anchor to port or other lines),
- (8). Adjustable mouse settings, and
- (9). Exit to basic and return without loss of data.

Being an absolute novice when it comes to electronics I was a little apprehensive about trying the programme out, besides a circuit diagram to me is nothing more than a heap of squiggly lines and numbers. The first thing I was impressed with was it's ease of booting and operation, simply have the mouse in the right joystick port and then <RUN"BOOT">. The programme automatically loads and then waits for your input. After about 10 minutes I was creating circuit diagrams with ease, they meant absolutely nothing but by crikey they looked good.

The programme comes with a fairly extensive set of instructions which are easy to read and follow, and I must admit will make a lot more sense to those who know a bit about electronics. For example "Zones, there are 7 zones along the Y axis of the schematic. Working in the integer value zones is faster than on fractional zones, integer values can be entered from the zone menu or a fractional zone may be entered in the jump option". I hope this makes sense to some of you electronics experts out there, to me it meant nought.

Not withstanding the technical jargon, the programme, as I have already stated is very easy to use. By simply pointing and clicking you can very quickly produce schematics complete with text and symbols, (words and squiggly lines).

One particular feature I like, is the ability to return from basic without the loss of your creation, if you stuff up simply type RUN"BOOT" and you are back where you started from.

In conclusion, for anyone with a CoCo3 who has been looking for a good schematics programme, this one is it. It is easy to use and around the \$50 - \$60 mark is reasonably priced.

The Colour Schematic Designer is available through REMCOMS or direct from RADICAL ELECTRONICS. See the ad elsewhere in this magazine.



REVIEWS



The PEEK, POKE and EXEC Trilogy

These books, by Kishmore M. Santwani,
are published in the US by Microcom
Software. The three books are:-
500 PEEKS, POKES and EXECs
SUPPLEMENT TO 500 PEEKS,
POKES and EXECs
300 PEEKS, POKES and EXECs
for COCO 3

Each book contains PEEKS, POKES and
EXECs to cover just about everything
in the COCO. They also contain
several routines which could be of
interest to a number of programmers.

The books are broken into sections
such as Disk use, Printer etc. Each
command in the sections start from
the lowest and increase to the
highest address used in that section.
This is especially handy when trying
to find out the purpose of a
particular PEEK or POKE.

The layout is simple and easy to
understand. First the Command is
given, then the Result followed by
any Remarks appertaining to that
particular item. The information is
treated in the same fashion in each
of the books.

The one main difference is that in
the COCO 3 book, addresses are given
in Hexadecimal instead of decimal as
in the other two books.

The utility routines contained in the
books include Key repeat, Autostart
for BASIC programmes and Key beep.
The Coco 3 book has utility routines
to Modify HPRINT characters, Scroll
protect for part of the text screen,
126K and 512K RAM test and many
more. These and other routines are
very interesting and can be adapted
for use in many programmes and
situations

While there is a lot of good usable
items in these three books there is
also much which is of little or no
use whatsoever. Many of the commands
are well known and used by most
programmers.

The books are well presented but each
is not much more than a small
handbook the largest of which
contains a mere 68 pages.

I found that after the first
experimentation period, the books
have been used more as a reference
guide. As such they are a useful
addition to any bookshelf.

My one complaint is the cost of these
books. At \$40, \$25 and \$40
respectively (Australian prices), I
feel that they are vastly over-
priced. In my humble opinion, if they
were compiled into a single volume
and it was priced at about \$40 then
that would be nearer a reasonable
value.

I must add that these Australian
prices reflect the high US prices.

In conclusion:-

Yes.....They are well presented.

Yes.....They are useful.

Yes.....They are helpful.

No.....They are not fairly priced.

In conclusion, I feel that this
overpricing bars me for recommending
these three books to anyone but a
rich enthusiast or for inclusion in a
club library where members will have
access.

ROBBIE DALZELL

(The books are available, below the
above mentioned prices from REMCOMS
11 Corcoran Cres CANUNGRA QLD
4275).

CALLIGRAPHER

A QUICK REVIEW

Over the last few years I have been buying a number of 'packages' of CoCo gear. The other day I was going through some of the disks that came with these packages and found a copy of "CALLIGRAPHER (OS9)". Now I must admit that this was a rediscovery as I can remember looking at this programme some time ago and putting it in the too hard basket. In those days I knew very little to nothing about OS9 and as such found the instructions on how to use the programme to be in some foreign language. Now that I have been using OS9 more frequently this foreign language is no longer so daunting, so I decided to sit down and see if I could master this programme to see what it could do.

The first thing about this programme is the instructions, even for those with a basic knowledge of the OS9 operating system, they are still hard going. I believe that someone with little knowledge of OS9 would do exactly what I did some time ago and put the whole project into the too hard basket. Don't get me wrong, the information required is in the manual, but you do need to read it a few times to find it. Is this all worth it, read on McDuff. What is CALLIGRAPHER really? Well calligrapher is not an interactive programme, it is a filter. The definition of a filter is a programme that reads input, does something with it and then writes output. This in a nutshell means that calligrapher will take a text file, adjust it as per your instructions and then print it to your printer. These instructions can be anything from the type of font to use, the type and number of 'Clipix' pictures to use and where to put them, the number of columns to use or whether to print to a file, disk or printer. This review in fact is printed using calligrapher and incorporating a number of different fonts. Including;

Old English

and Victory

Calligrapher is also capable of printing 'Clipix' pictures like;



and



There are literally hundreds more of these little pictures available. Calligrapher was produced by Sugar Software, I do not think they are still in operation, but I am trying to find a source for this terrific little programme. I will keep you posted.



PUBLIC DOMAIN LIBRARY

=====

This issue sees the addition of 3 new disks to the library. These disks cover three entirely separate subjects. ie Business, Graphics and Games.

APPLICATIONS DISK 036 BUSINESS

On this disk are gathered a compendium of programmes for the business orientated. They cover a wide range of areas from receipts and invoices to help in writing a personal resume. There are programmes to help the small builder or do-it-yourselfer calculate the cost and materials needed for small building projects such as room extensions. Bricks, mortar and beams etc. can be calculated. The programmes include everything from addressing envelopes to surveying a job. In fact everything except the manual work.

The programmes on this disk are:

ADRSBOOK	BRICKS	CASHFLOW
DEPRSCHD	DIR	ENVELOPE
FINANCE	INT RATE	INVOICE
LABOUR	METCONV	RECEIPT
REPTGENR	RESUME	STOCKS
TIMES	WF-DOC	WORDSCAR

GAMES DISK 019 GAMES PACK 5

=====

This disk contains 18 Basic games. You will surely find something to amuse you from:

ABOUT	BEARING	BLACKJK
CHES	DRAG	HORSE
NAUSEA	NUKEATTK	PUZZLE
ROCKS	RUBIC	SAUCER
SPINNIT	SUBCHASE	TRADERS
YANCC	YTZCARD	

GRAPHICS DISK 049

=====

GFX CARTOON/CHARACTERS

=====

This is the second of our MAC graphic picture disks. Again there are two sides of pictures to view. These are:

BLOOM	GARFIELD	HITCH
IBMPIC	OPUS	WEIRD
WOLVERIN	WIFE	BILLCAT
BREETA	DONATELO	DOCTORS
GLOVAL	HE-MAN	MMOUSE
ROY	ROBOCLIP	

These and all the disks in our FREE catalogue are available for \$5.00 inc.P&P from:

Robbie Dalzell
31 Nedland Cres.
Pt. Noarlunga Sth.
S.A. 5167

(Please make out cheques/money orders to R.DALZELL)

Products from CoNect

MINI RS232 PORT

The Mini RS232 Port is a low cost replacement for the Tandy Deluxe RS232 Pak. It is completely compatible with all existing software, and therefore is the port of choice for Disk Basic users. Users of even the more esoteric OS9 drivers, such as the serial mouse package, will also find this unit a drop in replacement.

The MINI is so named because of it's size - it is housed in a ROMPAK game case! Modem connection is made by a female DB25 connector on the 'top'. This unit requires a 12volt source, either the MultiPak or external supply connected through a mini plug on the units side.

Some of it's features include;

1. Enhanced flow control by using the 1488/1489 driver/receiver pair.
2. Enhanced addressability with a simple jumper to move from \$FF68 to \$FF6C
3. Rather than adding a custom cable or adapting connector, simply rejump the MINI to accomodate new drivers

The Mini RS232 can be the answer to that cluttered desk and unsightly MPI and with the non availability of the Tandy RS232 must surely be the answer for the serious cocoist.

This unit is available through REMCOMS for \$85 (AUS) plus postage charges from the USA.

THE XPANDER

The XPANDER started out as one part of the POCO project. It was never designed to replace the MPI, but to eliminate the need for such a device.

The layout of an Xpanded CoCo is the first feature to catch the eye - a floppy and/or hard drive case is plugged directly into the CoCo. The ROMPAK port is still available, and in fact a ROMPAK may be inserted and run. The only external evidence of the XPANDER is an aluminum case bottom.

The XPANDER is an excellent way to install a CoCo into a PC style case - the entire electronics package is 12"x7"x3.25" and fits nicely in a baby AT case. For such packaging a board only version without the unneeded lower case half or 12/-12v power supply is available.

Certain jumpers can be replaced with a switch kit. The computer does not have to be powered down to change positions, although rebooting to a different operating system will require a cold reset.

The XPANDER is available through REMCOMS;

CoCo Kit (xpander, lower case shell, 12/-12v power supply).....\$250(AUS)
(plus postage from the USA)

XPANDER Board Only.....\$145(AUS)
(plus postage from the USA)

OLD LADY by G. ELPHICK

This is another graphics programme from Graham Elphick. Graham has sent quite a few of these little beauties and I will print them for you over a number of issues. For all you novice programmers, these are excellent learning tools for you, type them in and then play around with some of the functions that Graham has used to see how they work.

5' OLD LADY

10 HSCREEN2:PALETTE RGB

20 HCOLOR8:HCLS11

50 HCIRCLE(128,96),85

60 HCIRCLE(128,96),82

70 HLINE(100,126)-(117,131),PSET

80 HLINE(117,131)-(132,131),PSET

90 HLINE(132,131)-(140,126),PSET

100 HLINE(140,126)-(156,126),PSET

110 HLINE(100,126)-(120,91),PSET

120 HLINE(115,85)-(131,106),PSET

130 HLINE(131,106)-(136,101),PSET

140 HLINE(136,101)-(123,82),PSET

150 HLINE(123,82)-(115,85),PSET

160 HLINE(123,83)-(127,79),PSET

170 HLINE(155,126)-(138,79),PSET

180 HLINE(121,73)-(128,80),PSET

190 HLINE(128,80)-(140,80),PSET

200 HLINE(140,80)-(149,75),PSET

210 HLINE(121,73)-(130,71),PSET

220 HLINE(130,71)-(134,66),PSET

230 HLINE(134,66)-(139,66),PSET

240 HLINE(139,66)-(143,72),PSET

250 HLINE(143,72)-(149,75),PSET

260 HLINE(132,69)-(137,71),PSET

270 HLINE(137,71)-(142,71),PSET

280 HLINE(131,70)-(136,74),PSET

290 HLINE(136,74)-(144,73),PSET

300 HLINE(143,78)-(153,98),PSET

310 HLINE(153,98)-(145,98),PSET

320 HLINE(151,93)-(154,93),PSET

330 HLINE(154,93)-(157,97),PSET

340 HLINE(157,97)-(162,97),PSET

350 HLINE(162,97)-(157,105),PSET

360 HLINE(157,105)-(147,105),PSET

370 HLINE(131,80)-(135,89),PSET

380 HLINE(135,89)-(142,89),PSET

390 HLINE(126,99)-(120,117),PSET

400 HLINE(120,117)-(133,120),PSET

410 HLINE(133,120)-(140,118),PSET

420 HLINE(140,118)-(152,118),PSET

430 HLINE(104,119)-(118,125),PSET

440 HLINE(118,125)-(132,125),PSET

450 HLINE(132,125)-(138,122),PSET

460 HLINE(138,122)-(154,122),PSET

470 HLINE(105,117)-(117,122),PSET

480 HLINE(117,122)-(132,122),PSET

490 HLINE(132,122)-(138,120),PSET

500 HLINE(138,120)-(153,120),PSET

510 HLINE(150,113)-(138,113),PSET

520 HLINE(138,113)-(133,115),PSET

530 HLINE(133,115)-(122,112),PSET

540 HLINE(122,110)-(132,112),PSET

550 HLINE(132,112)-(137,111),PSET

560 HLINE(137,111)-(150,111),PSET

570 HLINE(120,131)-(120,135),PSET

580 HLINE(120,135)-(123,135),PSET

590 HLINE(123,135)-(124,134),PSET

600 HLINE(124,134)-(128,134),PSET

610 HLINE(128,134)-(128,133),PSET

620 HLINE(128,133)-(133,133),PSET

630 HLINE(133,133)-(133,130),PSET

640 HLINE(138,144)-(143,142),PSET

650 HLINE(143,142)-(144,140),PSET

660 HLINE(144,140)-(148,140),PSET

670 HLINE(148,140)-(150,142),PSET

680 HLINE(150,142)-(150,149),PSET

690 HLINE(150,149)-(153,147),PSET

700 HLINE(153,147)-(161,147),PSET

710 HLINE(161,147)-(164,144),PSET

720 HLINE(164,144)-(165,153),PSET

730 HLINE(165,153)-(162,156),PSET

740 HLINE(162,156)-(147,156),PSET

750 HLINE(147,156)-(145,153),PSET

760 HLINE(145,153)-(145,145),PSET

770 HLINE(145,145)-(138,144),PSET

780 HLINE(154,156)-(154,159),PSET

790 HLINE(154,159)-(152,161),PSET

800 HLINE(152,161)-(157,161),PSET

810 HLINE(157,161)-(155,159),PSET

820 HLINE(155,159)-(156,156),PSET

830 HCIRCLE(58,118),4

840 HCIRCLE(76,118),4

850 HCIRCLE(94,118),4

860 HCIRCLE(160,118),4

870 HCIRCLE(178,118),4

880 HCIRCLE(197,118),4

890 HLINE(47,104)-(85,104),PSET
 900 HLINE(85,104)-(85,110),PSET
 910 HLINE(85,110)-(89,110),PSET
 920 HLINE(89,110)-(89,104),PSET
 930 HLINE(89,104)-(113,104),PSET
 940 HLINE(158,104)-(176,104),PSET
 950 HLINE(176,104)-(176,110),PSET
 960 HLINE(176,110)-(180,110),PSET
 970 HLINE(180,110)-(180,104),PSET
 980 HLINE(180,104)-(209,104),PSET
 990 HLINE(47,101)-(85,101),PSET
 1000 HLINE(85,101)-(85,87),PSET
 1010 HLINE(85,87)-(47,87),PSET
 1020 HLINE(114,101)-(90,101),PSET
 1030 HLINE(90,101)-(90,87),PSET
 1040 HLINE(90,87)-(117,87),PSET
 1050 HLINE(159,101)-(176,101),PSET
 1060 HLINE(176,101)-(176,87),PSET
 1070 HLINE(176,87)-(148,87),PSET
 1080 HLINE(209,101)-(181,101),PSET
 1090 HLINE(181,101)-(181,87),PSET
 1100 HLINE(181,87)-(209,87),PSET
 1110 HLINE(208,84)-(146,84),PSET
 1120 HLINE(117,84)-(48,84),PSET
 1130 HLINE(143,142)-(145,145),PSET
 1140 HLINE(147,142)-(148,143),PSET
 1150 HLINE(53,63)-(131,70),PSET
 1160 HLINE(142,70)-(208,79),PSET
 1170 HLINE(108,68)-(150,54),PSET
 1180 HLINE(150,54)-(197,52),PSET
 1190 HLINE(138,58)-(138,46),PSET
 1200 HLINE(138,46)-(144,41),PSET
 1210 HLINE(144,41)-(162,41),PSET
 1220 HLINE(162,41)-(167,46),PSET
 1230 HLINE(167,46)-(167,49),PSET
 1240 HLINE(167,49)-(170,49),PSET
 1250 HLINE(170,49)-(170,37),PSET
 1260 HLINE(170,37)-(174,33),PSET
 1270 HLINE(174,33)-(178,37),PSET
 1280 HLINE(178,37)-(178,53),PSET
 1290 HLINE(141,47)-(144,47),PSET
 1300 HLINE(144,47)-(144,51),PSET
 1310 HLINE(144,51)-(141,51),PSET
 1320 HLINE(141,51)-(141,47),PSET
 1330 HLINE(142,42)-(139,39),PSET
 1340 HLINE(139,39)-(131,45),PSET
 1350 HLINE(131,45)-(126,48),PSET
 1360 HLINE(126,48)-(126,54),PSET
 1370 HLINE(126,54)-(120,60),PSET

1380 HLINE(120,60)-(118,65),PSET
 1390 HCIRCLE(100,33),6
 1400 HLINE(0,0)-(33,0),PSET
 1410 HLINE(33,0)-(15,7),PSET
 1420 HLINE(15,7)-(0,0),PSET
 1430 HLINE(0,0)-(0,33),PSET
 1440 HLINE(0,33)-(8,15),PSET
 1450 HLINE(8,15)-(0,0),PSET
 1460 HCIRCLE(21,14),4
 1470 HLINE(255,0)-(212,0),PSET
 1480 HLINE(212,0)-(228,6),PSET
 1490 HLINE(228,6)-(255,0),PSET
 1500 HLINE(255,0)-(255,33),PSET
 1510 HLINE(255,33)-(249,16),PSET
 1520 HLINE(249,16)-(255,0),PSET
 1530 HCIRCLE(239,15),4
 1540 HLINE(0,191)-(0,158),PSET
 1550 HLINE(0,158)-(6,174),PSET
 1560 HLINE(6,174)-(0,191),PSET
 1570 HLINE(0,191)-(33,191),PSET
 1580 HLINE(33,191)-(16,183),PSET
 1590 HLINE(16,183)-(0,191),PSET
 1600 HCIRCLE(16,175),4
 1610 HLINE(255,191)-(255,158),PSET
 1620 HLINE(255,158)-(250,174),PSET
 1630 HLINE(250,174)-(255,191),PSET
 1640 HLINE(255,191)-(221,191),PSET
 1650 HLINE(222,191)-(237,184),PSET
 1660 HLINE(237,184)-(255,191),PSET
 1670 HCIRCLE(240,176),4
 1671 HPAINT(16,3),0,8
 1672 HPAINT(4,18),0,8
 1673 HPAINT(21,14),3,8
 1674 HPAINT(239,16),3,8
 1675 HPAINT(252,16),0,8
 1676 HPAINT(233,2),0,8
 1677 HPAINT(240,176),3,8
 1678 HPAINT(253,176),0,8
 1679 HPAINT(240,189),0,8
 1680 HPAINT(15,189),0,8
 1681 HPAINT(2,174),0,8
 1682 HPAINT(16,176),3,8
 1683 HPAINT(86,154),0,8
 1684 HPAINT(143,144),7,8
 1685 HPAINT(123,133),8,8
 1686 HPAINT(123,128),6,8
 1687 HPAINT(123,123),5,8
 1688 HPAINT(123,120),6,8
 1689 HPAINT(136,120),6,8


```

1690 HPAINT(142,119),6,8
1691 HPAINT(133,113),5,8
1692 HPAINT(128,96),6,8
1693 HPAINT(135,82),5,8
1694 HPAINT(143,83),6,8
1695 HPAINT(154,101),7,8
1696 HPAINT(76,118),7,8
1697 HPAINT(94,118),7,8
1698 HPAINT(160,118),7,8
1699 HPAINT(178,118),7,8
1700 HPAINT(197,118),7,8
1701 HPAINT(197,102),1,8
1702 HPAINT(197,97),0,8
1703 HPAINT(197,81),0,8
1704 HPAINT(169,92),0,8
1705 HPAINT(111,92),0,8
1706 HPAINT(111,85),1,8
1707 HPAINT(79,89),0,8
1708 HPAINT(79,71),0,8
1709 HPAINT(129,75),1,8
1710 HPAINT(134,71),3,8
1711 HPAINT(135,68),1,8
1712 HPAINT(146,68),2,8
1713 HPAINT(152,48),3,8
1714 HPAINT(152,35),5,8
1715 HPAINT(142,49),1,8
1716 HPAINT(134,49),8,8
1717 HPAINT(100,33),1,8
1718 HPAINT(113,15),3,8
1719 HPAINT(45,90),3,8
1720 HPAINT(113,177),3,8
1721 HPAINT(210,90),3,8
1722 HPAINT(58,118),7,8
1723 HPAINT(40,10),1,8
1726 GOTO 1726

```

What do you send to CoCo-Link and how?

Well anything to do with the CoCo or of interest to CoCo users is what we are after, from programs to articles to reviews on your favourite game, word processor or utility. How do you send it, well there are a number of ways.

1. Send it on disk with at least two saves and one of these being in ASCII format. Ensure that you also send a text file using any word processor giving some information about your program etc. If you do not have a word processor then a neatly hand written letter will do, but remember I am not a chemist so it must be legible.

2. Send it using the same system as for a disk but on a tape.

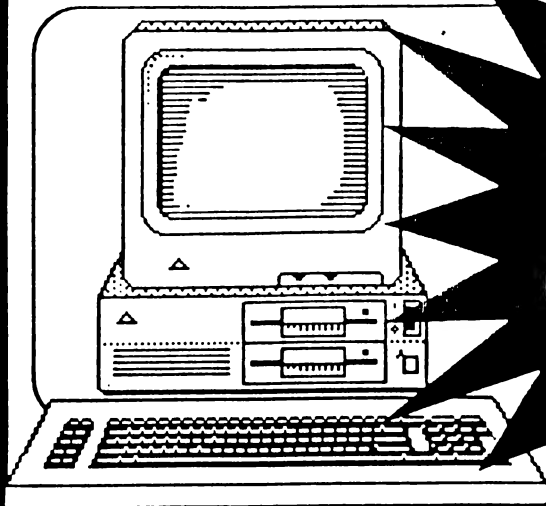
Some of the wordprocessors I have available to me include;
 Window Writer (OS9),
 Simply Better,
 VIP Writer,
 Word Power 3.3
 Max 10,
 Desk Mate 3, and
 Home Publisher.

If you are sending a program please ensure that you have tested it to make sure it works, I simply do not have time to debug your program. If you do NOT wish to have your creation submitted to the Public Domain Library then please let me know, otherwise I will send it on to Robbie for perusal.

ABOVE ALL REMEMBER that without your submissions, this magazine will fold, so help me to help you and send in your creations so that COCO LIVES!

COCO FRIENDS DISK MAGAZINE

"The most exciting new product for the CoCo Since....?"



COCO FRIENDS DISK MAGAZINE (CFDM) is devoted exclusively to those who still enjoy running under RS Dos. The standard system needed to use CFDM is CoCo 3, RGB monitor, at least one disk drive, and the RS Dos which came with your CoCo 3.

CFDM is a monthly disk based publication which is produced on a "floppie" disk. When you "Run" the "magazine" side of CFDM, you'll be greeted with a beautiful cover picture by CoCo Friend James Gibbons. Pressing any key takes you to the magazine's colorful Main Menu. There you'll find 14 sections which are filled with entries. Sections Included are: About CFDM; About this Issue; Active CoCo; Advertisements; CoCo Friends Art Gallery; Articles of the Month; Family Tree; Forum; From the Editor; Letters to the Editor; Potpourri; Programs of the Month; Reviews; and Question & Answers.

Next you will enter a Section and find a number of entries written by our CoCo Friends from all over the world. Each issue of CFDM contains from 60 to 80 entries. Some sections contain documentation about the many programs and graphics found on the "flip-side" of CFDM.

The "flip-side" or "program" side of CFDM is filled with contributions of wonderful programs and graphics from our many CoCo Friends! Each issue has from 2 to 4 hi-res pics and from 8 to 15 never-before-seen programs.

**8 to 15
never-before-seen
programs**

**The above software is available in
Australia through REMCOMS**

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SELF DESTRUCT

SELF DESTRUCT
BY
VAL STEPHEN

These three little shorties have been sent in by Val Stephen and as stated in his letter they will astonish some people yet they are very simple.

DESTROY1 will kill memory but leave the programme on the disk.

DESTROY2 will kill the programme on the disk, and

DESTROY3 will kill the entire disk of programmes.

IT IS ESSENTIAL THAT YOU DO NOT
TRY TO RUN THE PROGRAMMES UNTIL
YOU HAVE MADE A BACKUP!!

Of what use are these programmes you may ask, well to some of you absolutely none, particularly if you are into ML programming or OS9. BUT to all the novices out there who are just starting to realise the capabilities and enjoyment that the CoCo can bring, heaps. Use Val's idea to come up with your own programme, for example a protection routine for that masterpiece that you have been working on. It would not take much to incorporate Val's routines for this purpose. Try it, experiment with it and learn from it, but most of all when you have done it, then send it in for publication so that we can all benefit

REMEMBER TO MAKE BACKUPS BEFORE
RUNNING THESE ROUTINES.

Anyway here they are, type them in and enjoy. Keep them coming Val, short ones like these are an invaluable learning tool.

```
10 REM***SELF DESTRUCT - 1 **
20 REM**BY VAL STEPHEN**
30 CLS
40 PRINT:PRINT:PRINT"THIS PROGRAM
WILL SELF DESTRUCT",
50 FOR X=00TO2000:NEXT X
60 CLS:NEW
```

```
10 REM** SELF DESTRUCT 2 **
20 REM **BY VAL STEPHEN**
30 CLS:PRINT:PRINT:PRINT"THIS
PROGRAM WILL DESTROY ITSELF"
40 FOR X=0TO2000:NEXT X
50 CLS:KILL"DESTROY2/BAS"
```

```
10 REM**SELF DESTRUCT 3 **
20 REM **BY VAL STEPHEN**
30 CLS:PRINT:PRINT:PRINT"THIS
PROGRAM WILL CLEAR THE WHOLE
DISK."
40 FOR X=0TO2000:NEXTX
50 CLS:DSKINI0
```



BALLOON SHOOT

Ted and Aaron Beamish have submitted this short arcade type game. Again novice programers can use this as a learning tool by typing it in and then playing around with it to see how it works. Maybe even enhance it and then submit your changes to the magazine for all to use and learn from.

```

10 ' *
20 ' *****
30 ' *
40 ' * GUNGADIN SOFTWARE (C) *
50 ' *
60 ' * balloon shooter *
70 ' *
80 ' * JANUARY 1993 *
90 ' *
100 ' *****
110 ' *
120 '
130 CLS:WIDTH32:FG=37:BG=4
140 GOSUB150:GOTO160
150 PRINT@2,"-: GUNGADIN SOFTWARE
(C) :-":PRINT@104,"balloon
shooter":RETURN
160 PRINT@196,"(1) NEW GUNNER
(SLOW)"
170 PRINT@260,"(2) ACE GUNNER
(MEDIUM)"
180 PRINT@324,"(3) TOP GUNNER
(FAST)"
190 PRINT@388,"(4) QUIT"
200 AS=INKEY$
210 IF AS="1"THEN POKE65496,0
:POKE65494,0:GOTO260
220 IF AS="2"THEN POKE65496,0
:POKE65495,0:GOTO260
230 IF AS="3"THEN POKE65497,0
:GOTO260
240 IF AS="4"THEN POKE113,0
:EXEC40999
250 GOTO200
260 PRINT@485,"TAP (enter) TO
CONTINUE";CLS:GOSUB150
270 PRINT@224,"USE ARROW KEYS TO
CHANGE COLOURS"
280 PRINT@290,"SCORE 300 TO GET

```

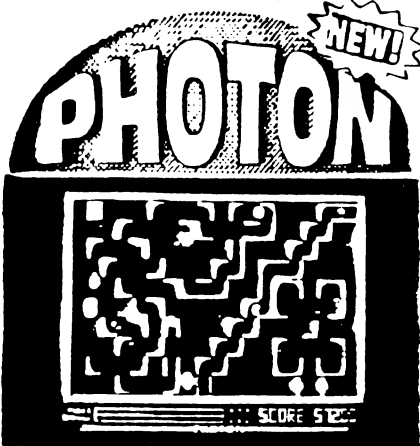
```

NEW SCREEN";
290 PRINT@357,"RIGHT JOYSTICK TO
AIM"
300 PRINT@390,"AND BUTTON TO
SHOOT";PRINT@485,"TAP (enter) TO
COMENCE";
310 DEF FNM(X) =X-INT(X/64)*64
320 POKE&HFFBC,FG:POKE&HFFBD,BG
330 AS=INKEY$:IF AS="" THEN 330
340 IF AS=CHR$(94) THEN
FG=FNM(FG+1) ELSE IF AS=CHR$(10)
THEN FG=FNM(FG-1) ELSE IF
AS=CHR$(9) THEN BG=FNM(BG+1) ELSE
IF AS=CHR$(8) THEN BG=FNM(BG-1)
ELSE IF AS=CHR$(13) THEN360
350 GOSUB320
360 IF A=0THEN CLS:PRINT"balloon
shooter MY SCORE ="S:FOR I=1TO50:
PRINT@RND(30)+RND(9)*32,"0";NEXT:A
=1:GOTO360ELSE PRINT@448,TAB
(JOYSTK(0)*.47)"(^) ";
:IF(PEEK(65280)AND1)=0 THEN
PRINT@RND(244)+31,"o";GOTO370
ELSE360
370 FOR I=417+INT(PEEK(346)*.47) TO
32 STEP-32:IF PEEK(1024+I)=79THEN
PRINT@1,"X";:PRINT@I+32," ";
:PLAY"T99AB":S=S+10:PRINT@26,S:IF
INT(S/300)=S/300THEN A=0:GOTO370
ELSE360ELSE IF PEEK(1024+I)=15THEN
PLAY"T2BGA"ELSE PRINT@1,"^";
:PRINT@I+32," ";NEXT:PRINT@I+32," ";
380 GOTO360

```

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
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 34 FARLEY ST CASINO NSW 2470
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SUNDOG SYSTEMS



Energy is everything; your home world depends on it. However, someone or something is slowly siphoning it away. As your world's champion, you must climb into the experimental Power Tank to challenge this nemesis and his minions. Your key lies with the ability to teleport solid mass. Use this to manipulate and explore the endless stronghold of the enemy, and to exploit the true-boring DUPES (Dense Units of Photon Energy) to destroy the menacing Plasma Droids. Be cautious, though, these DUPES can be deadly. Too! Photon, a fantastic new arcade game for your CoCo3, contains spectacular 320x200 resolution, 16 color graphics, ultra-smooth 60 Hz animation, and loads of real-time music and sound effects. It will bend your mind racing over endless possibilities, requiring quick decisions and reactions. Quite simply, Photon is incredibly addictive. It will deliver hours of excitement. Will you become your world's greatest hero, or just another energy slave? Req. 128K CoCo 3 and disk drive.

\$50-00

GRAFX EXPRESS 2.0

GrafxExpress 2.0 is a complete graphics and music programming environment. From the beginner to the accomplished professional, you can use GrafxExpress to create lightning fast arcade games, graphic applications and utilities, and windowing multimedia demonstrations. The GrafxExpress package includes two incredible systems. GrafxExpress 1.0 works on all monitor types and offers support in 12 graphic resolutions (from 128x192 to 320x225), GrafxExpress 2.0 offers 6 resolutions (from 128x192 to 160x225 on a composite monitor) in an astounding 256 colors! Ever see a CoCo do that before? Both systems include standard graphics commands (CIRCLE, FILL, etc.) that blow away the competition. For example, the BOI command peaks out at over 2 MegaPixels/second, that's 300 times faster than BASIC! 255 separate sprites of up to 100x100 pixels each are supported with window clipping and high-res pixel level collision checking. The 8 octave/4 voice music synthesizer has independent envelope, waveform, and volume controls, a 7 + KHz sampling rate, and much more. Other features include text/graphics mixing, different font sizes, fast window copying and scrolling, picture save/load, easy implementation from both BASIC and assembly language, multiple screen animation, and support for 128K/512K, double speed, and the high-res joystick interface. The package also contains support programs that are worth the purchase price of GrafxExpress alone! These include an introductory demo, a picture editor, a waveform editor, and an art program that supports 256 colors! GrafxExpress also comes with a 50 page manual that fully explains all of its incredible features. If you do any graphics programming or simply want to see what your little CoCo is capable of, GrafxExpress is a must! Req. 128K CoCo 3 and disk drive.

\$50-00

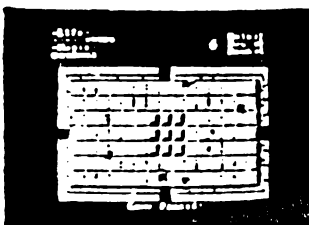
War Monger



The world is in unrest. Power-hungry villains and evil warlords are readying their forces. It falls to you to lead your people against these armies, and only your best strategic plans can save the day. Fight the good fight in any era or locale. Play a simple game of capture the flag armed with water balloons, or climb into the cockpit of a 100 foot high armored warrior. Explore the deepest dungeons, defend your galaxy, or create your own scenarios with this incredible war game construction set/simulator. Your imagination is your only limit. You will deploy your forces with total control over hostile terrain while you scroll a graphic bird's-eye window over an immense world. War Monger has terrific 320x200 resolution, 16 color graphics and includes a file editor to create or edit your own. Play against the computer, battle with another player, or simply watch the computer plot against itself. The enemy is everywhere. Are you ready to take on the challenge as the War Monger? Req. 128K CoCo 3 and disk drive.

\$50-00

The Quest for THELDA



An immensely popular 128K CoCo 3 arcade/adventure. Over 500 screens of fast fantasy action and puzzle solving. Great graphics and sound effects.

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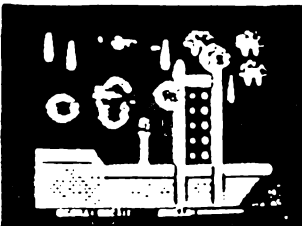
THE CONTRAS



A 512K two player futuristic combat arcade game. Full screen 320x225 hardware scrolling and smooth animation. Background music score and sound effects! 512K CoCo 3 only. Shipping soon!

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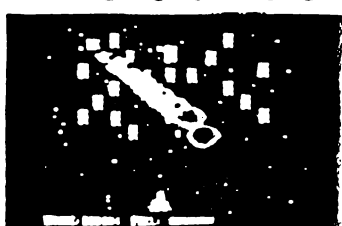
Captain's Quest



This was THE game of '81! Ultra-fast space action with hardware scrolling on a 128K CoCo 3. Wild sound effects and over 30 MegaBytes of amazing graphics!

\$50-00

ZENIX



Lightning fast arcade game for the 128K CoCo 3. Terrific 320x225 graphics, background music score and sound effects, and out-of-sight game play.

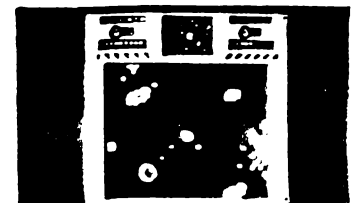
\$45-00

ALSO AVAILABLE

Warrior King CoCo 3	\$45-
In Quest of the Star Lord CoCo 3	\$50-
Mini Sheet	
Hall of the King 1, 2 or 3 CoCo 1-3	\$50- each
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Champion CoCo 1-3	\$40-
Paladin's Legacy CoCo 1-3	\$40-

Please add \$5 for postage.

Sinistarr



Everyone loves this 512K arcade game. 3 disks packed with spectacular graphics and wide background digital sound effects. 512K CoCo 3 on 5 1/4."

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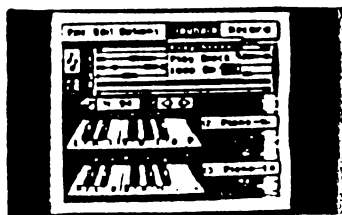
KYUJIN-SAI TO BE NINJA



The best selling 128K CoCo 3 martial arts arcade game. Now available in both RS DOS and OS 9 versions. Play the incredible combat experience you've been missing under the operating system of your choice!

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COCKTAIL



A polyphonic digital sound sequencing system for your 128K/512K CoCo 3 with a user-friendly point-and-click graphic editor. Create music scores with your own sounds or from the many we provide.

Sample instrument disks. 6 sides of sampled sounds/instruments.

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SUNDOG SYSTEMS

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703/330-8989

The above software is available in Australia through REMCOMS

COCO CLOCK by K. KENNY

***A Digital Coco Clock**
by Keiran Kenny

This program presents a simulation of a 12-hour digital clock and I hope you will agree that the graphics are crisp and the timing acceptably accurate.

Lines 300 to 320 contain the strings for the numbers in the time display. These are drawn on the PMODE0 screen, and graphics on the PMODE0 screen execute much faster than graphic on other screens.

The high-speed poke operates throughout. Line 30 establishes the values SP and SL according to whether you are using a CoCo 3 or an earlier CoCo.

The value DL=945 in line 20 sets the basic timing rate for the clock: i.e. the time the display for each second is held on the screen. A simple digit like 1 will take a count of less than six to draw while a complex digit like 8 will take a count of more than 20 to draw.

The factor, U, is the time taken to erase previous digits and draw new digits. A factor, U*12, is subtracted from DL so that the display time for 38 will be less than that for 11 to compensate for the fact that the 38 took longer to draw.

For more accurate timekeeping, you can make minor changes to the value DL. You can also advance the timing of the clock secondwise while it is running, by pressing the up-arrow, and retard it by pressing the down arrow.

Press CLEAR to end the program and restore normal operating speed

```

0 'A DIGITAL COCO CLOCK
1 'BY KEIRAN KENNY
2 'COPYRIGHT (C) 1993
3 'BY FALSOFT, INC.
4 'RAINBOW MAGAZINE
10 CLS
20 DL=945
30 IF PEEK(33021)=50 THEN SP=65497:
SL=65496 ELSE SP=65495:SL=65494
40 POKESP,0
50 GOTO290
60 PMODE0,1:PCLS:SCREEN1,1
70 GET(0,0)-(55,39),A
80 FOR H=BH TO12:HS=RIGHT$(STR$(H),LEN (STR$(H))-1):IF H<10 THEN
HS="0"+HS
90 FOR M=BM TO59:MS=RIGHT$(STR$(M),LEN(STR$(M))-1):IF M<10 THEN
MS="0"+MS
100 FOR S=0 TO59:SS=RIGHT$(STR$(S),LEN(STR$(S))-1):IF S<10 THEN
SS="0"+SS
110 WS=HS+"."+MS+"."+SS
120 DRAW"S24BM24,103":TIMER=0:FOR
ZB=1 TO LEN(WS):DRAW LS(ASC(MID$(WS,ZB,1)))+ "BR":NEXT:U=U+TIMER*12
130 IF PEEK(135)=12 THEN400
140 IF(S+1)/10=INT((S+1)/10) THEN 150
ELSE IF PEEK(341)=247 THEN S=S+1
150 IF PEEK(342)=247 THEN S=S-1
160 FOR D=1 TO DL-U:NEXT:U=0
170 IF(S+1)/10=INT((S+1)/10) THEN
TIMER=0:PUT(184,64)-(235,103),A:U=U+
TIMER*12:GOTO190
180 TIMER=0:PUT(216,64)-(239,103),A:
U=U+TIMER*12
190 NEXTS
200 IF(M+1)/10=INT((M+1)/10) THEN
TIMER=0:PUT(104,64)-(159,103),A:U=U+
TIMER*12:GOTO220
210 TIMER=0:PUT(128,56)-(175,103),A:
U=U+TIMER*12
220 IF M=59 THEN BM=0
230 NEXTM
240 IF(H+1)/10=INT((H+1)/10) OR
H=12 THEN TIMER=0:PUT(24,64)-
(79,103),A: U=U+TIMER*12:GOTO260

```

```

250 TIMER=0:PUT(48,64)-(71,103),A:
U=U+TIMER*12
260 IF H=12 THEN BH=1
270 NEXT H
280 GOTO 80
290 DIM L$(57),A(15)
300 L$(48)="BRHU4ER2FD4GNL2BR":
L$(49)="BRR2LU6NGBR2BD6":L$(50)="B
USER2FDGL2GD2R4":L$(51)="BU5ER2FDG
NL2FDGL2NHBR3":L$(52)="BR3U6G3R4B
D3":L$(53)="BRNHR2EU2HL3U2R4BD6"
310 L$(54)="BUU3NE2BD3FR2EUHL2GB
D2BR4":L$(55)="BU5UR4DG4DBR4":L$(5
6)="BRHUER2EUHL2GDFR2FDGNL2BR":L$(
57)="BRNHR2EU4HL2GDFR3BD3"
320 L$(46)="BRBU2NUBD2BR"
330 PRINT@72,"(<<<COCO CLOCK>>>)"
340 PRINT:PRINT"BY KEIRAN KENNY,
THE HAGUE, 1993"
350 PRINT@226,"";INPUT"ENTER HOUR
(1-12):";BH
360 IF BH<10R BH>12 THEN PRINT@224:
GOTO350
370 PRINT@288,"";INPUT"ENTER
MINUTE (0-59):";BM
380 IF BM<00R BM>59 THEN
PRINT@288: GOTO370
390 GOTO60
400 POKESL,0:CLS:END

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX NATIONAL OS9 USER GROUP

The National OS9 User Group is based in Brisbane and caters for those CoCo users who are well into OS9/OSK. They produce a monthly newsletter and have an extensive library for the use of members.

Subscriptions to the magazine are only \$18 per year, (the same as CoCo-Link) and at this price is well worth it if you wish to keep up to date in the world of OS9.

The National OS9 User Group can be contacted by phone or mail as follows;

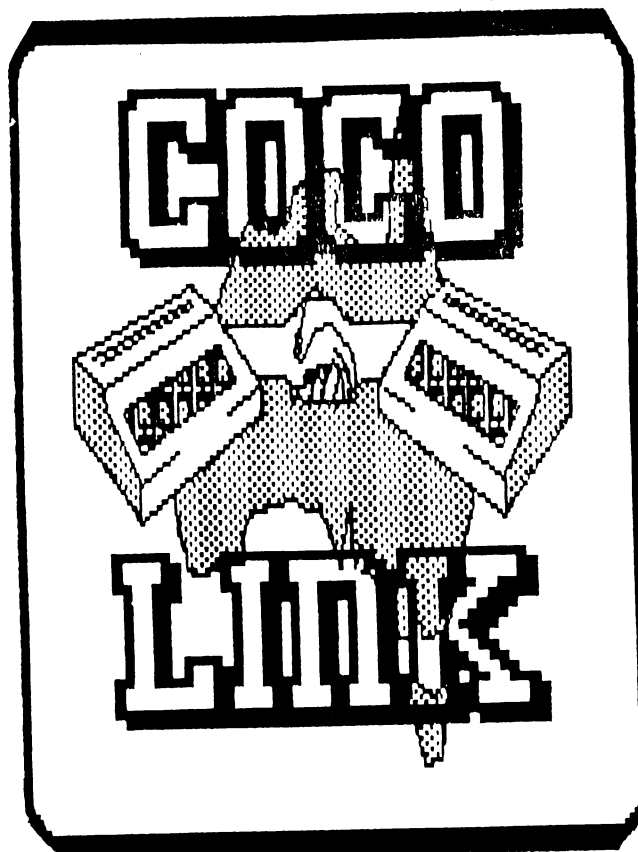
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SUNNYBANK QLD 4109

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



MORSE CODE by G HOLDER

Have you ever wanted to learn morse code but thought it was too hard or too expensive to do a course? Then this little beauty from Gary Holder is just what you have been waiting for, with it you can quickly master the elements of morse code. Just type in this listing and away you go, and a lot cheaper than doing an expensive course.

```

30 'MORSE CODE
40 'BY GARY HOLDER. 1991
45 POKE150,1
50 CLS
60 LOCATE 26,0:PRINT "MORSE CODE"
70 LOCATE 26,2:PRINT STRING$(10,"-")
80 LOCATE 1,6:PRINT "A - PRINT AND
HEAR":LOCATE 1,9:PRINT "B - DOTS
AND DASHES"
90 LOCATE 1,12:PRINT "C - THE MORSE
CODE TO PRINTER"
95 LOCATE 1,15:PRINT "Q - QUIT THE
PROGRAMME"
100 IS=INKEY$:IF IS="" THEN100
110 IF IS="A" THEN120 ELSE IF IS="B"
THEN320 ELSE IF IS="C" THEN 430ELSE
IF IS="Q"THEN800
120 CLS:PRINT" PRESS LETTERS &
NUMBERS":PRINT:PRINT" PRESS CLEAR
TO CLEAR SCREEN":PRINT:PRINT" PRESS
- DASH FOR CT":PRINT:PRINT" PRESS /
SLASH FOR AR"
130 PRINT:PRINT" PRESS @ TO RETURN
TO MENU"
140 PRINT STRING$(32,"-")
150 IS=INKEY$:IF IS="" THEN150
160 IF IS="A" THEN PLAY"T2003L3GP2
L1G" ELSE IF IS="B" THEN PLAY"T200
3L1GP2L3GP2GP2G" ELSE IF IS="C"
THEN PLAY"T2003L1GP2L3GP2L1GP2L3G"
ELSE IF IS="D" THEN PLAY"T2003L1GP
2L3GP2G"
170 IF IS="E" THEN PLAY"T2003L3G"
ELSE IF IS="F" THEN PLAY"T2003L3GP2
GL1P2GL3P2G" ELSE IF IS="G" THEN
PLAY"T2003L1GP2GL3P2G" ELSEIF IS="H"
THEN PLAY"T2003L3GP2GP2GP2G"
180 IF IS="I" THEN PLAY"T2003L3

```

```

GP2G" ELSE IF IS="J" THEN PLAY"T2003
L3GP2L1GP2GP2G" ELSE IF IS="K" THEN
PLAY"T2003L1GL3P2GL1P2G" ELSE IF
IS="L" THEN PLAY"T2003L3GL1P2GL3P2
GP2G"
190 IF IS="M" THEN PLAY"T2003L1GP
2G" ELSE IF IS="N" THEN PLAY"T200
3L1GL3P2G" ELSE IF IS="O" THEN
PLAY"T2003L1GP2GP2G" ELSEIF IS="P"
THEN PLAY"T2003L3GL1P2GP2GL3P2G"
200 IF IS="Q" THEN PLAY"T2003L1GP2GL
3P2GL1P2G" ELSE IF IS="R" THEN
PLAY"T2003L3GP2L1GP2L3G" ELSE IF
IS="S" THEN PLAY"T2003L3GP2GP2G"
ELSE IF IS="T" THEN PLAY"03T20L1G"
210 IF IS="U" THEN PLAY"T2003L3GP2
GL1P2G" ELSE IF IS="V" THEN PLAY"T20
03L3GP2GP2GL1P2G" ELSE IF IS="W"
THEN PLAY"T2003L3GL1P2GP2G" ELSE
IF IS="X" THEN PLAY"03T20L1GL3P2GP
2GL1P2G"
220 IF IS="Y" THEN PLAY"T2003L1GL
3P2GL1P2GP2G" ELSE IF IS="Z" THEN
PLAY"T2003L1GP2GL3P2GL1P2G"
230 '
240 'NUMBERS
250 IF IS="1" THEN PLAY"T2003L3GL1P
2GP2GP2GP2G" ELSE IF IS="2" THEN
PLAY"T2003L3GP2GL1P2GP2GP2G" ELSE
IF IS="3" THEN PLAY"T2003L3GP2GP
2GL1P2GP2G" ELSE IF IS="4" THEN
PLAY"03T20L3GP2GP2GP2GP1P2G"
260 IF IS="5" THEN PLAY"T2003L3GP2
GP2GP2GP2G" ELSE IF IS="6" THEN
PLAY"T2003L1GL3P2GP2GP2GP2G" ELSE
IF IS="7" THEN PLAY"T2003L1GP2GL3
P2GP2GP2G" ELSE IF IS="8" THEN
PLAY"03T20L1GP2GP2GL3P2GP2G"
270 IF IS="9" THEN PLAY"T2003L1GP
2GP2GP2GL3P2G" ELSE IF IS="0" THEN
PLAY"T2003L1GP2GP2GP2GP2G"
280 IF IS="-" THEN PLAY"T2003L1GP2L
3GL1P2GL3P2GL1P2G" ELSE IF IS="/"
THEN PLAY"T2003L3GP2L1GL3P2GL1P
2GL3P2G"
290 IF IS=CHR$(64) THEN 50 ELSE
IF IS=CHR$(12) THEN CLS
300 PRINT IS;
310 GOTO150

```

```

320 CLS
330 PRINT:PRINT:PRINT"PRESS STOP .
FOR DOT"
340 PRINT:PRINT"PRESS SLASH / FOR
DASH"
350 PRINT:PRINT"PRESS SPACE BAR TO
SEPARATE"
360 PRINT"PRESS @ TO RETURN TO
MENU"
370 AS=CHR$(32):BS=CHR$(46):CS=
CHR$(47)
380 IS=INKEYS:IFIS="" THEN 380
390 IFIS=BS THEN SOUND100,1 ELSE IF
IS=CS THEN SOUND100,3
400 IF IS=CHR$(64) THEN 50 ELSE IF
IS=CHR$(12) THEN CLS ELSE IF IS=AS
THEN PRINT CHR$(32);
410 IFIS=BS THEN PRINT "."; ELSE IF
IS= CS THEN PRINT "-";
420 GOTO370
430 PRINT#-2,"          THE MORSE
CODE"
440 PRINT#-2
450 PRINT#-2," TO HELP YOU
REMEMBER AND RECOGNISE THE MORSE
CODE, PRESS A ON MENU AND THEN
WHILE NOT LOOKING AT KEYS OR
SCREEN"
460 PRINT#-2,"PRESS RANDOM KEYS
AND WRITE DOWN THE LETTER OR
NUMBER THAT YOU HEARD IN MORSE
CODE, THEN CHECK WITH SCREEN"
470 PRINT#-2
480 PRINT#-2,"A . . . . . B - . . . .
C - . . . . D - . . . .
490 PRINT#-2
500 PRINT#-2,"E . . . . . F . . . . .
G - . . . . H . . . . .
510 PRINT#-2
520 PRINT#-2,"I . . . . . J . . . . .
K - . . . . L . . . . .
530 PRINT#-2
540 PRINT#-2,"M - . . . . . N - . . . .
O - . . . . P - . . . .
550 PRINT#-2
560 PRINT#-2,"Q - . . . . R . . . .
S . . . . T - . . . .
570 PRINT#-2
580 PRINT#-2,"U . . . . V . . . .

```

```

W . . . . . X - . . . .
590 PRINT#-2
600 PRINT#-2,"Y - . . . . Z - . . . .
610 PRINT#-2
620 PRINT#-2
630 PRINT#-2,"1 . . . . . 6 - . . . .
640 PRINT#-2,"2 . . . . . 7 - . . . .
650 PRINT#-2,"3 . . . . . 8 - . . . .
660 PRINT#-2,"4 . . . . . 9 - . . . .
670 PRINT#-2,"5 . . . . . 0 - . . . .
680 PRINT#-2
690 PRINT#-2
700 PRINT#-2,"CT - . . . .
COMMENCEMENT OF TRANSMISSION"
710 PRINT#-2,"AR . . . . . END OF
TRANSMISSION"
720 GOTO50
800 CLS:LOCATE 1,12:PRINT " - OK -
BYE FOR NOW":END

```

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CONVERT by G. McLINTOCK

If like me you have a heap of CoCo2 graphics in your disk collection, then this programme is the answer. I have used it succesfully on a number of older graphics screens. It is well worth the effort of typing it in.

10 '##CONVERT BY GEORGE MCLINTOCK
30/11/86

```
20 GOTO 80
30 SAVE"5:3":END'7
40 STOP
60 ' PROGRAM TO CONVERT SOURCE
STATEMENTS FOR OLD COCO GRAPHIC
SCREEN TO HIGH RES SCREEN FOR
COCO 3
80 WIDTH80:CLS:PRINT"PROGRAM TO
CONVERT A LOW RES SCREEN BASIC
PROGRAM TO HIGH RES FOR THE COCO
3":PRINT:PRINT"THE PROGRAM MUST
BE SAVED TO DISK IN ASCII
FIRST":PRINT
90 PCLEAR 1:CLEAR 15000:GOSUB
1160:PRINT "ENTER NAME OF EXISTING
PROGRAM":INPUT NS:K=INSTR(NS,"/"):
IF K=0 THEN NS=NS+"/BAS"
100 PRINT:PRINT"ENTER NAME FOR
NEW PROGRAM":INPUT NIS: K=INSTR
(NIS,"/"):IF K=0 THEN NIS=NIS+
"/BAS"
110 OPEN "I",#1,NS:OPEN "O",#2,NIS
120 IF EOF(1) THEN 1010
130 LINE INPUT #1,AS
140 IF LEN(AS)=0 THEN 690 ELSE IF
LEN(AS) > 253 THEN J=16:GOSUB 880
150 K=INSTR(AS," "): LNS=LEFTS
(AS,K):PRINT LNS:PRINTAS
160 IF MIDS(AS,K,1)=" " THEN K=K+1:
GOTO 160
170 IF MIDS(AS,K,4)="DATA" THEN
690
180 GOSUB 940
190 J=1:K=INSTR(AS,CS(J)):IF K(>)0
THEN GOSUB 880 'DIM
200 J=2:FOR X=1 TO 3 'PMODE PCLEAR
PCOPY
210 K=INSTR(AS,HS(X)):IF K=0 THEN
270
```

```
220 GOSUB 720:IF SW=1 THEN 210
230 KI=INSTR(K,AS,":"):AIS=LEFTS
(AS,K-1): GOSUB 880
240 IF KI=0 THEN A2$="" ELSE
A2$=MIDS(AS,KI)
250 IF INSTR(AIS,":")==0 AND
INSTR(A2$,":")==0 THEN
AS=AIS+"REM"+A2$:GOTO 270
260 AS=AIS+A2$:GOTO 210
270 NEXT X
290 J=3:L=1 'SCREEN
300 K=INSTR(L,AS,CS(J)):IF K=0 THEN
360
310 GOSUB 720:IF SW=1 THEN 300
320 KI=INSTR(K,AS,":"):AIS=LEFTS
(AS,K-1): L=K+LEN(CS(J)):GOSUB 880
330 IF KI=0 THEN A2$="" ELSE A2$=
MIDS(AS,KI)
340 AS=AIS+"HSCREEN 28"+A2$:GOTO
300
350 '
360 FOR J=4 TO 5:L=1 'PSET PRESET
370 K=INSTR(L,AS,CS(J)):IF K=0 THEN
430
380 GOSUB 720:IF SW=1 THEN 370
390 X=K-1:L=K+LEN(CS(J))
400 IF MIDS(AS,X,1)=" " THEN X=X-1:
GOTO 400
410 IF MIDS(AS,X,1)="," THEN 370
420 GOSUB 880:MIDS(AS,K)="H":GOTO
370
430 NEXT J
440 '
450 FOR J=6 TO 7:L=1 'PCLS PPOINT
460 K=INSTR(L,AS,CS(J)):IF K=0 THEN
490
470 GOSUB 720:IF SW=1 THEN 460
480 MIDS(AS,K)="H":L=K+LEN(CS(J)):
GOSUB 880:GOTO 460
490 NEXT J
500 '
510 FOR J=8 TO 14:L=1 'ADD H TO
THESE
520 IF LEN(AS) > 254 THEN
J1=J:J=15:GOSUB 880:J=J1:GOTO 590
530 K=INSTR(L,AS,CS(J)):IF K=0THEN
590
540 GOSUB 720:IF SW=1 THEN 530
550 IF CS(J)="GET" THEN GOSUB 770
```

```

560 IF CS(J) = "PUT" THEN IF
MIDS(AS,K-2,2) = "IN" THEN L=K+3:
GOTO 530
570 A1$=LEFT$(AS,K-1):A2$=MIDS
(AS,K): L=K+LEN(CS(J))+1
580 AS=A1$+"H"+A2$:GOSUB 880:GOTO
520
590 NEXT J
600 '
610 J=17:FOR X=4 TO 5
620 K=INSTR(AS,HS(X)):IF K <> 0
THEN GOSUB 880
630 NEXT X
640 '
650 J=18:FOR X=6 TO 7
660 K=INSTR(AS,HS(X)):IF K <> 0
THEN GOSUB 880
670 NEXT X
680 '
690 PRINT #2,AS:PRINTAS
700 GOTO 120
710 'TEST FOR INSIDE QUOTES
720 SW=0:IF Q=0 THEN RETURN
730 FOR T=1 TO Q
740 IF K>Q(T,0) AND K<Q(T,1) THEN
SW=1: L=Q(T,1): T=Q+2
750 NEXT T:RETURN
760 '
770 K1=INSTR(K,AS,":"):IF K1=0 THEN
GOSUB 840 ELSE K1=K1-1
780 IF MIDS(AS,K1,1) = " " THEN
K1=K1-1:GOTO 780
790 Y=K1-1
800 IF MIDS(AS,Y,1)=" " THEN
Y=Y-1:GOTO 800
810 IF MIDS(AS,Y,1)="," AND
MIDS(AS,K1,1)="G" THEN 820 ELSE
RETURN
820 A1$=LEFT$(AS,Y-1):A2$=MIDS
(AS,K1+1): AS=A1$+A2$
830 RETURN
840 K1=INSTR(K,AS,""):IF K1=0 THEN
K1=LEN(AS) ELSE K1=K1-1
850 RETURN
860 '
870 'RECORD LINE NUMBERS
880 IF LEN(L$(M(J,1))) = 0 THEN
L$(M(J,1))=LNS:RETURN
890 IF INSTR(L$(M(J,1)),LNS) <> 0

```

```

THEN RETURN
900 IF LEN(L$(M(J,1)))+LEN(LNS) >
255 THEN M(J,1)=M(J,1)+1:IF M(J,1)
>= M(J+1,0) THEN PRINT:PRINT "OUT
OF SPACE FOR ";CS(J):PRINT"ADJUST
M ARRAY": CLOSE: STOP
910 L$(M(J,1)) = L$(M(J,1)) + LNS
920 RETURN
930 'SET UP QUOTE ARRAY
940 Q=0:L=1
950 K=INSTR(L,AS,CHRS(34)):IF K=0
THEN RETURN
960 Q=Q+1:Q(Q,0)=K:L=K+1
970 K=INSTR(L,AS,CHRS(34)):IF K=0
THEN K=LEN(AS)-1
980 Q(Q,1)=K:L=K+1:GOTO 950
990 '
1000 ' PRINT REFERENCE TABLE
1010 CLS:CLOSE:PRINT "ENTER P TO
PRINT TABLE":INPUT "ELSE PRESS
ENTER";AS:IF AS="" THEN 1280
1020 PRINT#-2,SES,NS,EES:PRINT#-2,
"LINE NUMBERS CONTAINING
SELECTED COMMANDS"
1030 FOR J=1 TO 18
1040 PRINT#-2,SES,CS(J),EES," ";
1050 IF LEN(L$(M(J,0))) = 0 THEN
PRINT#-2,"NONE":GOTO 1130
1060 IF LEN(L$(M(J,0))) <= 80 -
LEN(CS(J))*2+2 THEN
PRINT#-2,L$(M(J,0)):GOTO 1130 ELSE
PRINT#-2
1070 FOR X=M(J,0) TO M(J,1)
1080 IF LEN(L$(X)) <= 80 THEN
PRINT#-2,L$(X):GOTO 1120
1090 Y=80
1100 IF MIDS(L$(X),Y,1) = " " THEN
PRINT#-2,LEFT$(L$(X),Y-1):L$(X) =
MIDS(L$(X),Y+1):GOTO 1080
1110 Y=Y-1:GOTO 1100
1120 NEXT X
1130 NEXT J
1140 '
1150 STOP
1160 'SET PARAMS
1170 DIM CS(19),M(19,1),L$(190),
HS(10),Q(50,1)
1180 FOR J=1 TO 19:M(J,0)=(J-1)*10+1:
M(J,1)=M(J,0): NEXT J

```

```

1190 CS(1)="DIM":CS(2)="REMOVED":
CS(3)="SCREEN":CS(4)="PSET"
1200 CS(5)="PRESET":CS(6)="PCLS":
CS(7)="PPOINT":CS(8)="PAINT"
1210 CS(9)="PUT":CS(10)="COLOR":
CS(11)="CIRCLE":CS(12)="LINE"
1220 CS(13)="GET":CS(14)="DRAW":
CS(15)="TOO LONG":CS(16)="> 253"
1230 SES=CHR$(14):EES=CHR$(15)
1240 CS(17)="POSS ML":CS(18)=
"PEEK/POKE"
1250 HS(1)="PMODE":HS(2)="PCOPY":
HS(3)="PCLEAR":HS(4)="DEFUSR"
1260 HS(5)="EXEC":HS(6)="PEEK":
HS(7)="POKE"
1270 RETURN
1280 CLEAR 5000
1290 ON ERR GOTO 2180
1300 AA=40
1310 DIM PS(11)
1320 DIM PE(11)
1330 DIM PN(11)
1340 DIM RPS(11)
1350 CLS
1360 CLS:WIDTH80:PRINT"THE REST OF
THIS PROGRAMME WILL NOW CONVERT"
1370 PRINT"ALL THE PRINT @
STATEMENTS TO LOCATE STATEMENTS"
1380 PRINT"YOU MUST FIRST ENTER
THE NAMES (WITH EXTENSION)"
1390 PRINT"OF THE SOURCE
PROGRAMME AND FINAL CONVERTED"
1400 PRINT"PROGRAMME.":PRINT:
PRINT:PRINT
1410 PRINT"YOU MUST NOW USE THE
PROGRAMME YOU JUST CONVERTED
FOR THE SOURCE"
1420 PRINT"PROGRAMME AND THEN
YOUR DESIRED NAME FOR THE
FINISHED PRODUCT,"
1430 PRINT"ENSURE THAT YOU
INCLUDE THE EXTENSION"
1440 PRINT:PRINT
1450 INPUT "FILE TO BE CONVERTED...
INCLUDE THE EXTENSION IE
(OLDNAME/BAS)";AS
1460 PRINT
1470 INPUT "NAME OF CONVERTED
FILE...INCLUDE THE EXTENSION IE
(NEWNAME/BAS)";BS
1480 PRINT
1490 PRINT"CONVERT PRINT@
STATEMENTS TO:"
1500 PRINT"          1. 40 COLUMN
SCREEN"
1510 PRINT"          2. 80 COLUMN
SCREEN"
1520 INPUT A:IF A<1 OR A>2 THEN
CLS:GOTO 1490
1530 IF A=1 THEN AA=40 ELSE AA=80
1540 WIDTH AA
1550 PRINT "CONVERTING FILE ";AS
1560 PRINT
1570 PRINT "TO FILE ";BS
1580 PRINT
1590 PRINT "FOR SCREEN SIZE OF";AA
1600 PRINT
1610 PRINT "PLEASE WAIT..."
1620 OPEN "1",#1,AS
1630 OPEN "0",#2,BS
1640 LINE INPUT#1,IPS
1650 IF EOF(1)=-1 THEN
CLOSE#1:OP=-1
1660 TGS="PRINT@"
1670 PS(1)=INSTR(1,IPS,TGS)
1680 IF PS(1)=0 THEN PRINT#2,IPS
ELSE GOTO 1700
1690 IF OP=-1 THEN 1950 ELSE GOTO
1640
1700 FOR X=2 TO 10
1710 PS(X)=INSTR(PS(X-1)+1,IPS,TGS)
1720 IF PS(X)=0 THEN GOTO 1740
1730 NEXT X
1740 FOR Z=1 TO X-1
1750 FOR V=PS(Z)+5 TO PS(Z)+10
1760 CCS=MID$(IPS,V,1)
1770 IF CCS="@" THEN C=V
1780 IF CCS="," THEN
PE(Z)=V:PN(Z)=VAL (MID$
(IPS,C+1,V-1)): C=0
1790 NEXT V
1800 NEXT Z
1810 MM=X-1
1820 GOSUB 1970
1830 C=1
1840 FOR VV=1 TO LEN(IPS)
1850 IF C>MM THEN GOTO 1870
1860 IF VV=PS(C) THEN CDS=CDS+

```

```

RPS(C):VV=VV+PE(C)-PS(C):C=C+1:
GOTO 1890
1870 CCS=MIDS(IPS,VV,1)
1880 CDS=CDS+CCS
1890 NEXT VV
1900 IPS=CDS
1910 PRINT#2,IPS
1920 CCS="":CDS=""
1930 IF BP=-1 THEN GOTO 1950
1940 GOTO 1640
1950 CLS:PRINT "PROGRAM HAS BEEN
CONVERTED."
1960 END
1970 'SBR FOR NUMBER CONVERSION
1980 FOR K=1 TO MM
1990 J=PN(K)
2000 IF J<0 THEN J=0
2010 IF J>511 THEN J=511
2020 Y=INT(J/32)
2030 X=J/32
2040 Z=X-Y
2050 Y=Y+1
2060 Z=(Z*32)+1
2070 IF AA<80 THEN Z=Z ELSE Z=Z*2
2080 YY=(Y-1)*1.5
2090 ZZ=(Z-1)*1.25
2100 IF YY-(INT(YY))<0.5 THEN
YY=INT(YY) ELSE YY=INT(YY)+1
2110 IF ZZ-(INT(ZZ))<0.5 THEN
ZZ=INT(ZZ) ELSE ZZ=INT(ZZ)+1
2120 XXS=STR$(ZZ):XXS=RIGHT$(
XXS,LEN(XXS)-1)
2130 YYS=STR$(YY):YYS=RIGHT$(
YYS,LEN(YYS)-1)
2140 RPS(K)="LOCATE "+XXS+", "+YYS
2150 RPS(K)=RPS(K)+":PRINT "
2160 NEXT K
2170 RETURN
2180 'ERROR TRAP SUBROUTINE
2190 IF ERNO=14 THEN PRINT"STRING
TOO LONG!":PRINT "SHORTEN THIS
LINE...":PRINT CDS:CLOSE#1:CLOSE#2:
KILL BS:END
2200 IF ERNO=26 THEN PRINT "CAN
NOT FIND THAT FILE!...TRY AGAIN!":
FOR K=1 TO 1000:NEXT K:RUN
2210 CLS:PRINT "ERROR
NUMBER...",ERNO," IN LINE
NUMBER...",ERLIN:END

```

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PCCC

Peninsular Colour Computer Club

The PCCC is a user group which could argueably be the longest running CoCo user group in Australia. The club has been going strong for 11 years that I know of and is still a plethora of information on the CoCo.

They are based on the Mornington peninsular in Melbourne and can be contacted by phoneing :

Greg MacKenzie (059)838 991
 Bob Charleston (059)791 922
 Barry Eling (059)711 338
 Stan Blazejewski (03)580 4605

oooooooooooooooooooooooooooooooo



THREE WISE MEN

Here is another of Graham Elphicks graphic programmes. This one draws the three wise men.

```
20 HSCREEN2:PALETTE RGB
30 HCOLOR8:HCLS11
40 PALETTE0,2:PALETTE2,4:PALETTE4,0:
PALETTE6,3:PALETTE11,62:PALETTE13,20:
PALETTE14,3:PALETTE15,49
50 HLINE(60,144)-(104,108),PSET
60 HLINE(113,108)-(94,108),PSET
70 HLINE(94,108)-(103,82),PSET
80 HLINE(103,82)-(120,64),PSET
90 HLINE(120,64)-(126,64),PSET
100 HLINE(126,64)-(126,67),PSET
110 HLINE(126,67)-(130,71),PSET
120 HLINE(130,71)-(130,76),PSET
130 HLINE(130,76)-(126,76),PSET
140 HLINE(126,76)-(133,83),PSET
150 HLINE(133,83)-(144,80),PSET
160 HLINE(144,80)-(140,93),PSET
170 HLINE(140,93)-(141,107),PSET
180 HLINE(141,107)-(127,103),PSET
190 HLINE(113,108)-(111,84),PSET
200 HLINE(111,84)-(123,64),PSET
210 HLINE(124,64)-(127,135),PSET
220 HLINE(136,129)-(131,104),PSET
230 HLINE(60,144)-(236,144),PSET
240 HLINE(118,144)-(162,109),PSET
250 HLINE(174,109)-(153,109),PSET
260 HLINE(153,109)-(161,79),PSET
270 HLINE(161,79)-(175,64),PSET
280 HLINE(175,64)-(182,64),PSET
290 HLINE(182,64)-(182,68),PSET
300 HLINE(182,68)-(185,71),PSET
310 HLINE(185,71)-(185,75),PSET
320 HLINE(185,75)-(193,83),PSET
330 HLINE(193,83)-(203,78),PSET
340 HLINE(203,78)-(199,95),PSET
350 HLINE(199,95)-(203,107),PSET
360 HLINE(179,64)-(182,132),PSET
370 HLINE(185,75)-(179,75),PSET
380 HLINE(185,75)-(188,129),PSET
390 HLINE(174,109)-(169,81),PSET
400 HLINE(169,81)-(180,64),PSET
410 HLINE(203,107)-(187,103),PSET
420 HLINE(192,104)-(197,124),PSET
430 HLINE(161,144)-(218,108),PSET
440 HLINE(218,108)-(251,103),PSET
450 HLINE(251,103)-(251,109),PSET
460 HLINE(251,109)-(246,109),PSET
470 HLINE(246,109)-(243,112),PSET
480 HLINE(243,112)-(238,112),PSET
490 HLINE(238,112)-(233,120),PSET
500 HLINE(233,120)-(240,123),PSET
510 HLINE(240,123)-(246,119),PSET
520 HLINE(246,119)-(247,134),PSET
530 HLINE(247,134)-(227,130),PSET
540 HLINE(227,130)-(227,144),PSET
550 HLINE(236,144)-(240,139),PSET
560 HLINE(240,139)-(232,131),PSET
570 HLINE(212,144)-(235,121),PSET
580 HLINE(247,104)-(217,134),PSET
590 HLINE(217,134)-(192,124),PSET
600 HLINE(143,84)-(151,80),PSET
610 HLINE(151,80)-(143,80),PSET
620 HLINE(202,81)-(210,78),PSET
630 HLINE(210,78)-(203,78),PSET
640 HLINE(246,123)-(250,119),PSET
650 HLINE(250,119)-(246,119),PSET
660 HCIRCLE(148,75),6
670 HCIRCLE(206,72),6
680 HCIRCLE(148,70),4
690 HLINE(148,70)-(148,65),PSET
700 HLINE(151,67)-(145,67),PSET
710 HCIRCLE(249,115),4
720 HLINE(206,66)-(206,61),PSET
730 HLINE(203,64)-(209,64),PSET
731 HPAINT(104,96),2,8
732 HPAINT(118,96),3,8
733 HPAINT(129,96),6,8
734 HPAINT(148,76),1,8
735 HPAINT(129,112),5,8
736 HPAINT(167,112),2,8
737 HPAINT(183,112),5,8
738 HPAINT(190,112),6,8
739 HPAINT(190,93),0,8
740 HPAINT(209,71),1,8
750 HPAINT(171,71),6,8
760 HPAINT(216,116),0,8
761 HPAINT(226,127),7,8
762 HPAINT(236,127),2,8
763 HPAINT(230,133),8,8
764 HPAINT(224,136),6,8
765 HPAINT(249,115),1,8
766 GOTO 766
```

FOR SALE AND WANTED

Last month we started a For Sale and Wanted column. It appears that it was an overwhelming success. So if you want to sell anything or perhaps you are looking for something in particular, let us know.

FOR SALE

ROM PAKS

- . Reactoid
- . Popcorn
- . Microbes
- . Galactic Attack
- . Personal Finance 2
- . Diagnostics
- . Gomoku/Renjo
- . Canyon Climber (No manual)
- 3 x Edtasm + (only 1 manual)
- . Cyrus Chess
- . TRS-80 Color Logo

TAPES

- . Draconian
- . Sea Quest
- . Zaxxon
- . Shenanigans
- . Worlds of Flight
- . The Black Sanctum
- . Musica
- . War of the Worlds (1,2 & 3)
- . Super Screen Machine Machine
- . Guix
- . Wizards Tower
- . SR-71
- . Call X to Island
- . Madness and the Minotaur
- . Pyramid 2000
- . Raoka-Tu
- . File 64 - Data Management
- . Tutankom
- 2 x Hi-Res Screen Print Utility
- . Pursuit for COCO3

TAPES (cont)

- . Color Compac (For use with Tandy Deluxe RS232 Cartridge)
- . COCO 02 - APR87
- . COCO 02 - NOV86
- . COCO 02 - DEC86
- . COCO 02 - MAY85
- . COCO 02 - MAR87
- . COCO 02 - JUL85
- . AUST RAINBOW - FEB87

DISKS

- . COCO MAX 1 & 2
- . Flight SIM One
- . Color Kit
- . VIP Writer
- . VIP Writer with VIP Disk Zap
- . Sands of Egypt
- . Varalyzer for Faster Basic
- . Complete Enchanter
- . Family Tree
- . The Dallas Quest
- . Dragon Blade
- . Disk Zapper
- . Color Basic Compiler
- . Telewriter 64
- . Home Publisher
- . Decathlon
- 2 x T/S Edit for Disk Basic and OS9
- . Cave Walker
- . Micro Illustrator
- 2 x Shamus
- . The Illustrated Computer
- . Disk Graphics

HARDWARE

- 1 x Cable connects COCO2 or 3 to TV
- 1 x Single button Mouse - \$15
- 1 x OKI Microline 82A printer - no manual - \$50
- . Deluxe Joystick (Fire button casing damaged - still works) - \$10
- . Joystick Controllers - (Brand new) \$10 for the pair

FOR SALE AND WANTED

HARDWARE (cont)

. Joystick Controllers (Plastic tops missing - still goes) - \$5 for pair
1 x 16K COCO 2 - \$50
2 x Single Sided Disk Drive -
40 TRKS only \$20 each
1 x DS-69 Video digitizer
(+ software)
1 x Master Key II (Hardware copier for COCO2 only).

As you can see Desmond has a vast array of software and hardware. He is offering packages of these tapes/disks and cartridges - the prices are amazing - so give him a call, you will be pleasantly surprised. All software is ORIGINAL and comes with manuals unless otherwise stated.

Mr Desmond Rae
PO Box 2076
MT ISA BLD 4825
(077) 433 486

. After 4.30pm weekdays
. After 12 noon on weekends

WANTED

Desmond is looking for C-BASIC 3 compiler for COCO3 or an equivalent compiler.

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FOR SALE

1 x COCO2 - 64K with manual
2 x COCO2 - Mini Disk 5 1/4 drives
2 x COCO2 - Disk Controllers with Manual
1 x Multi-Pak Interface with manual
1 x CGP-115 4-pen colour graphics printer with manual (as new)

For Sale (Cont)

1 x Deluxe RS-232 Program Pak with manual
1 x Modem II
1 x X-Pad (no manual) Model GT-116
1 x CTR-80 cassette recorder with leads
1 x Color Logo ROM cartridge with manual
1 x Color Disk Edtasm with manual
1 x Disk Graphics with manual
1 x Disk Scripsit with manual
1 x Disk Flightsim with manual

These books are also included:

Programming the 6502
Microcomputer Primer
Getting Started with Color Basic (COCO2)
Going Ahead with Extended Color Basic (COCO2)
Color Logo Guide for Teachers Book 1

Also - Blank tapes, leads, adaptors etc.

A 240v - 120v converter would be needed and the plugs changed over.

THE LOT \$200

Mr G. Donges
PO Box 326
KIPPAX ACT 2615
(06) 254 9354

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External Modem for CoCo 3
Auto ranging 300 to 2400 Min
Contact this magazine for details.
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FOR SALE AND WANTED

FOR SALE

1 x Multi Pak Interface for COCO3 -
Hardly used and still in it's original
box with manual ... Arthur also has an
extender cable (12" - 18" long) that
allows you to position the Multi Pak
away from your computer.

PRICE - \$50

Mr Arthur Williams
67 High Street
HARRINGTON NSW 2427
(065) 56-1517

WANTED

Arthur is looking for a disk drive for a COCO3. If anyone can help, please give Arthur a call on the above number.

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FOR SALE

```
1 x COCO 3 512K
Software
Mouse
Joystick
TOTAL PRICE $220
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Mr Wilf Dixon
27 Glenthorn Crescent
O'Halloran Hill SA 5158
(08) 322 3793

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Back issues of CoCo, Softgold, Australian Rainbow and American Rainbow. Prices from \$2 to \$8. Contact this magazine for detail

Disk drives 35Trk single sided and
 40Trk double sided from \$20. Contact
 this magazine for details.

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Aust Rainbow:

Oct - Dec 82

Jan - Dec 84

Jan - Dec 86

Nov/Dec 87

Feb - Dec 83

Jan - Dec 85

Jan/Feb 87

Jan - Mar 88

Aust CoCo

Sep 84 - Oct 88

Softgold

Mar 87 - Feb 88

Hot CoCo

Sep 84

Feb 85

Price:

\$100 the lot or \$1 per issue plus postage.

Mr. Ron Pengelly

1 Gamacks Lane

WEST KEMPSEY

NSW 2440

Phone: 065 - 631850

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CoCo III Tool Kit

Disk Commands

*Backup, Initialize,
Directory, Verify, Compare,
Search, Edit, Erase, Speed
Test, Step Rate Test, Gran
Table Analysis & Repair*

File Commands

*Archive, Copy, Kill, Rename,
Erase, View, Edit, Print,
Compare, Salvage, Search,
Verify, Test Archive, Un-
Archive, Xmodem Send/Rec.*

Coco Tools is a comprehensive set of disk utilities, providing the most complete set of functions available for the standard R.S. DOS disk system. Comparable in scope and functionality to that of the famous utility available for MS-DOS computers "PC-TOOLS"!

Coco Tools provides fast and easy operation of standard commands like Copy, Rename, Kill, Disk Initialize and Directory thru a consistent and easy to use interface. It provides easy visual selection of files, so multiple file operations can be carried out with very few keystrokes.

Coco Tools is also the most Comprehensive Disk Repair program available, it Automatically diagnosis and repairs file allocation errors, locates corrupt directory information and cross linked files. It provides fast and easy recovery of deleted files without the drudgery normally associated with killed file recovery. It also does lightning fast disk I/O for fast Backup and Copying at speeds you thought only higher priced computers could perform. Coco Tools has multi-file Arciving, Un-Arciving and Test Arciving functions plus the ability to extract any selected group or individual files from a compressed file with easy visual file selection. And allows customizing of display colors, printer/Serial baud rate, Drive step rates and Directory sorting preference. Coco Tools requires a 128K CoCo III, 1 Disk drive and an 80 column display

**The above software is available in
Australia through REMCOMS**

\$90.00 + \$5.00 Postage

***Cer-Comp Ltd.
5566 Ricochet Avenue
Las Vegas, NV 89110
702-452-0632***

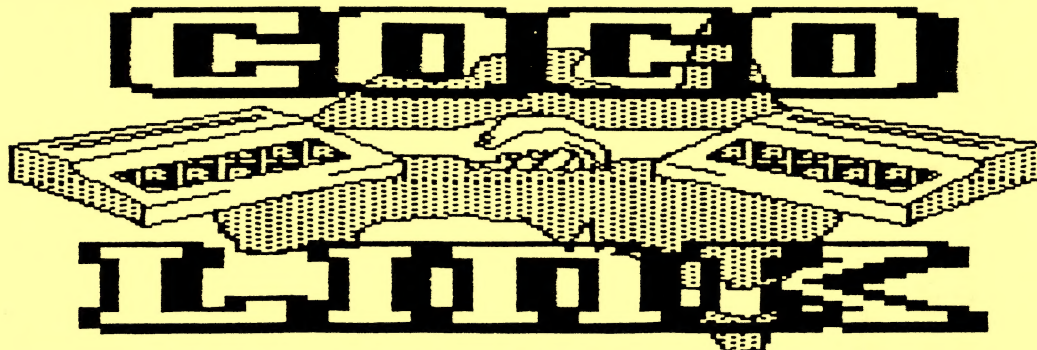
COCOA WATCHLIST

Name	Street	Town/Stat/PC	Phone
Alway Peter	PO Box 821	Boronia Park/NSW 2111	02 816 2130
Barker Bob	PO Box 711	Liverpool/NSW 2170	
Bentzen Gordon	8 Odin St	Sunnybank/QLD 4109	07 344 3881
Blazejowski Stan		Mordialloc/VIC	03 580 4605
Boardman William	10 Eltham Ave	Pt Lincoln/SA 5606	086 82 2385
Bye Graham	9 Airlie Bank Rd	Morwell/VIC 3840	051 34 5954
Cameron William	2/22 Warren St	St Lucia/QLD 4067	07 371 4736
Colls Jason	16 Clavus St	Geelong/VIC 3214	052 75 5450
Cooper Len&Shirley	223 Elswick St	Leichardt/NSW 2040	
Cosier W.F	32 Argyll St	Coffs Harbour/NSW 2450	066 524 056
Cunnigham Eric	7 Nuthatch St	Inala/QLD 4077	07 372 2980
Dalzell Robbie	31 Nedland Cres	Pt Moarlunga/SA 5167	08 386 1647
Devries Bob	21 Virgo St	Inala/QLD 4077	07 372 7816
Donges Geoff	PO Box 326	Kippax/ACT 2615	06 254 9354
Eadsforth Jim	PO Box 329	Goolwa/SA 5214	
Edwards Peter	40 Davison St	Litcham/VIC 3132	03 873 5249
Elphick Graham	26 Birch St	St Mary's/NSW 2760	02 623 8141
Gall Brian	PO Box 131	Cooranbong/NSW 2265	049 772 178
Hester Joseph	7 Henry St	Moe/VIC 3825	051 271 158
Holder Garry	229 Esplanade	Seaford/SA 5161	08 386 1139
Hutchinson Simon	10 Ascot Court	Nth Dandenong/VIC 3175	
Ikin John	42 Spruce Dve	Roxville/VIC 3178	03 759 6253
Johnson Fraser	35 Robson Ave	Gorokan/NSW 2263	043 923 298
Kenny Bob	3/14 Bellingen Rd	Coffs Harbour/NSW 2450	066 51 2205
Lidgard Ron	17 Acacia St	Thornlands/QLD 4164	
McGrath John	93 Lemon Guns	Dr Tamworth/NSW 2340	067 618 071
McIntock George	7 Logan St	Narrabundah/ACT 2604	06 295 6590
McNabb John	PO Box 109	Boronia/VIC 3155	03 758 9008
Morgan Peter		Cooyar/QLD 4402	076 926 248
Morris John	30/45 Lawrence	Hargrave Rd Warwick Farm 2170	02 822 4678
Munro Ron	91 Blackburn Rd	Elizabeth E/SA 5112	08 255 0405
Murrells Alan	5 Goulburn Ave	Corio/VIC 3214	052 75 3065
Quinn Stephen		Orange/NSW	063 62 0519
Rae Desmond	PO Box 2076	Mt Isa/QLD 4825	077 43 3486
Remin Fred	11 Corcoran Cres	Canungra/QLD 4275	075 435 821
Remin Fred (1)	3/1 Franklin St	East Doncaster/VIC	03 842 8545
Rosch Raymond	5 Euphrates Pl	Kearns/NSW 2558	02 820 7228
Schmidt Richard	5a Stephens Ave	Torrensville/SA 5031	08 354 0951
Steman John	PO Box 680	Windsor/NSW 2755	
Stephen Val	1 Mabel St	Camberwell/VIC 3124	
Stevens Darren	16 Hewitt St	Colac/VIC 3250	052 311 795
Vagg Johanna	9 Belah St	Forbes/NSW 2871	068 52 2943
Williams Arthur	67 High St	Harrington/NSW 2427	065 56 1517

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If you would like your name included in the above list in order to help other cocoists and to maintain contact between us, then send the above information to me for inclusion.

Do you know of the existence of a user group in your area or are you considering starting one up again? Let me know the details including the contact names and phone numbers, meeting place, times etc, and I will print it in this magazine.

REMEMBER, USER GROUPS ARE THE BACKBONE OF THE COCO COMMUNITY!



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